

**DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that my residence, mailing address and citizenship are as stated below next to my name: that I verily believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter claimed and for which a patent is sought in the application entitled:

Birefringence-free passive optical component

which application is:

☐ the attached application  
(for original application)

Application No. \_\_\_\_\_  
(Confirmation No. \_\_\_\_\_) filed  
\_\_\_\_\_, and amended on \_\_\_\_\_

(for declaration not accompanying application)

that I have reviewed and understand the contents of the specification of the above-identified application, including the claims, as amended by any amendment referred to above; that I acknowledge my duty to disclose information of which I am aware and which is material to the patentability of this application as defined in 37 C.F.R. 1.56, that I hereby claim priority benefits under Title 35, United States Code §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, §119(e) of any United States provisional application(s), or §365(a) of any PCT International application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate or of any PCT International application having a filing date before that of the application on which priority is claimed:

Application Number	Country	Filing Date	Priority Claimed	
			Yes	No
100 41 174.6	Germany	August 23, 2000	X	<input type="checkbox"/>

I hereby claim the benefit under 35 United States Code §120 of any United States application(s), or §365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in a listed prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge my duty to disclose any information material to the patentability of this application as defined in 37 C.F.R. 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application No.	Filing Date	Status
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I hereby appoint John H. Mion, Reg. No. 18,879; Thomas J. Macpeak, Reg. No. 19,292; Robert J. Seas, Jr., Reg. No. 21,092; Darryl Mexic, Reg. No. 23,063; Robert V. Sloan, Reg. No. 22,775; Peter D. Olexy, Reg. No. 24,513; J. Frank Osha, Reg. No. 24,625; Waddell A. Biggart, Reg. No. 24,861; Louis Gubinsky, Reg. No. 24,835; Neil B. Siegel, Reg. No. 25,200; David J. Cushing, Reg. No. 28,703; John R. Inge, Reg. No. 26,916; Joseph J. Ruch, Jr., Reg. No. 26,577; Sheldon I. Landsman, Reg. No. 25,430; Richard C. Turner, Reg. No. 29,710; Howard L. Bernstein, Reg. No. 25,665; Alan J. Kasper, Reg. No. 25,426; Kenneth J. Burchfiel, Reg. No. 31,333; Gordon Kit, Reg. No. 30,764; Susan J. Mack, Reg. No. 30,951; Frank L. Bernstein, Reg. No. 31,484; Mark Boland, Reg. No. 32,197; William H. Mandir, Reg. No. 32,156; Brian W. Hannon, Reg. No. 32,778; Abraham J. Rosner, Reg. No. 33,276; Bruce E. Kramer, Reg. No. 33,725; Paul F. Neils, Reg. No. 33,102; Brett S. Sylvester, Reg. No. 32,765; Robert M. Masters, Reg. No. 35,603; George F. Lehnigk, Reg. No. 36,359; John T. Callahan, Reg. No. 32,607; Steven M. Gruskin, Reg. No. 36,818; Peter A. McKenna, Reg. No. 38,551 and Edward F. Kenahan, Reg. No. 28,962, my attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and request that all correspondence about the application be addressed to **SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC**, 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037-3213.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date December 10, 2001 First Inventor Axel KLEKAMP  
Residence Markgröningen Germany Signature *Axel Klekamp*  
City Markgröningen State/Country  
Mailing Address: Rieslingweg 8  
71706 Markgröningen, Germany  
Citizenship German

Date December 10, 2001 Second Inventor Wiltraud WISCHMANN  
Residence Markgröningen Germany Signature W. Wischmann  
City State/Country First Name Middle Initial Last Name

Mailing Address: Pappelweg 66  
71706 Markgröningen, Germany

Citizenship German

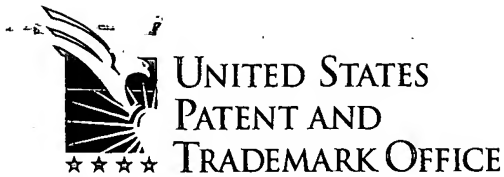
Date \_\_\_\_\_ Third Inventor Arnd KLIAN  
Residence Berlin Germany Signature \_\_\_\_\_  
City State/Country First Name Middle Initial Last Name

Mailing Address: Wilhelmstrasse 48  
10117 Berlin, Germany

Citizenship German

Date \_\_\_\_\_ Second Inventor Wiltraud WISCHMANN  
First Name Middle Initial Last Name  
Residence Markgröningen Germany Signature \_\_\_\_\_  
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Citizenship German

Date December 10, 2001 Third Inventor Arnd KILIAN  
First Name Middle Initial Last Name  
Residence Berlin Germany Signature Arnd Kilian  
City State/Country  
Mailing Address: Wilhelmstrasse 48  
10117 Berlin, Germany  
Citizenship German



FEBRUARY 04, 2002

PTAS

Under Secretary of Commerce For Intellectual Property and  
Director of the United States Patent and Trademark Office  
Washington, DC 20231  
[www.uspto.gov](http://www.uspto.gov)

SUGHRUE MION, PLLC  
DAVID J. CUSHING  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, D.C. 20037-3213



\*101915844A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/11/2001

REEL/FRAME: 012357/0669  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

KLEKAMP, AXEL

DOC DATE: 12/10/2001

ASSIGNOR:

WISCHMANN, WILTRAUD

DOC DATE: 12/10/2001

ASSIGNOR:

KILIAN, ARND

DOC DATE: 12/10/2001

ASSIGNEE:

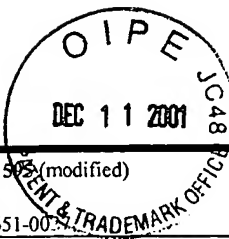
ALCATEL  
54, RUE LA BOETIE  
75008 PARIS, FRANCE

SERIAL NUMBER: 09933731  
PATENT NUMBER:

FILING DATE: 08/22/2001  
ISSUE DATE:

012357/0669 PAGE 2

LAZENA MARTIN, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



12-14-2001



101915844

Q65476

Form PTO-1502 (modified)  
(Rev. 03/01)  
OMB No. 0651-0021

EET

U.S. DEPARTMENT OF COMMERCE  
U.S. Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Axel KLEKAMP  
Wiltraud WISCHMANN  
Arnd KILIAN

12-15-01

2. Name and address of receiving party(ies):

ALCATEL  
54, rue La Boetie  
75008 Paris, FRANCE

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other

Execution Date: December 10, 2001

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)  
09/933,731

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

SUGHRUE MION, PLLC  
2100 Pennsylvania Avenue, N.W.  
Suite 800  
Washington, D.C. 20037-3213

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41): \$40.00

- ☒ Enclosed. Please charge any underpayment in connection with this Assignment to Deposit Account No. 19-4880.  
☐ Authorized to be charged to deposit account

8. Deposit account number:

19-4880

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

David J. Cushing

Reg. No. 28,703

December 11, 2001

Date

Total number of pages including cover sheet, attachments, and documents: 3

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks

Box Assignment

Washington, D.C. 20231

12/14/2001 00000049 09933731

01 FC:581

40.00 OP

# Assignment

Whereas, I/We Axel KLEKAMP, Wiltraud WISCHMANN and Arnd KILIAN of Markgröningen, Germany, Markgröningen, Germany and Berlin, Germany hereinafter called assignor(s), have invented certain improvements in  
Birefringence-free passive optical component

and executed an application for Letters Patent of the United States of America therefor in

Application number 09933731 and Confirmation number 6524 on  
December 10, 2001; and

Whereas,

ALCATEL  
54 , rue La Boetie  
75008 Paris, France

(assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee; its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including the right to claim priority under 35 U.S.C. §119, and I/we request the Director - U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

Date: Dec. 10, 2001 Axel KLEKAMP

s/

Date: Dec. 10, 2001 Wiltraud WISCHMANN

s/

Date: Arnd KILIAN

s/

Date:

s/

Date:

s/

Date:

s/

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

8/92

SOLE/JOINT

# Assignment

Whereas, I/We Axel KLEKAMP, Wiltraud WISCHMANN and Arnd KILIAN of Markgröningen, Germany, Markgröningen, Germany and Berlin, Germany hereinafter called assignor(s), have invented certain improvements in  
Birefringence-free passive optical component

and executed an application for Letters Patent of the United States of America therefor in

Application number 09933731 and Confirmation number 6524, on  
December 10, 2001; and

Whereas,

ALCATEL  
54, rue La Boetie  
75008 Paris, France

(assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including the right to claim priority under 35 U.S.C. §119, and I/we request the Director - U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

Date: Axel KLEKAMP  
s/  
Date: Wiltraud WISCHMANN  
s/  
Date: Dec. 10, 2001 Arnd KILIAN *Arnd Kilian*  
s/  
Date: \_\_\_\_\_  
s/  
Date: \_\_\_\_\_  
s/  
Date: \_\_\_\_\_  
s/

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

8/92

SOLE/JOINT





UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

SEPTEMBER 15, 2003

PTAS

WILSON SONSINI GOODRICH & ROSATI  
U.P. PETER ENG  
650 PAGE MILL ROAD, FH 1-2  
PALO ALTO, CA 94304-1050



\*700043845\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
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RECORDATION DATE: 09/11/2003

REEL/FRAME: 013967/0152  
NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ALCAEL

DOC DATE: 07/31/2003

ASSIGNEE:

AVANEX CORPORATION  
40919 ENCYCLOPEDIA CIRCLE  
FREMONT, CALIFORNIA 94538

SERIAL NUMBER: 09933731  
PATENT NUMBER:

FILING DATE: 08/22/2001  
ISSUE DATE:

JEFFREY OLSEN, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

09/11/2003  
700043845

FORM PTO-1595

## RECORDATION FORM COVER SHEET

U.S. DEPARTMENT OF COMMERCE

1-31-92

## PATENTS ONLY

Patent and Trademark Office

To the Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Alcatel  
54 rue La Boétie,  
75008 Paris, France

Additional name(s) of conveying party(ies) attached?

☐ Yes ☒ No

## 2. Name and address of receiving party(ies):

Name: Avanex Corporation

Street Address: 40919 Encyclopedia Circle

City/State/Zip: Fremont, California 94538

Additional name(s) &amp; address(es) attached?

☐ Yes ☒ No

## 3. Nature of conveyance:

☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ OtherExecution Date: July 31, 2003

## 4. Application number(s) or patent number(s): 1

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s): 09/933,731

B. Patent No.(s):

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: U.P. Peter Eng  
Internal Address: FH 1-2  
Wilson Sonsini Goodrich & Rosati  
650 Page Mill Road  
Palo Alto, CA.94304-1050

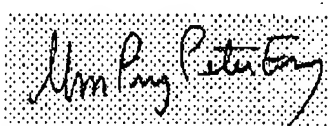
## 6. Total number of applications and patents involved: [1]

7. Total fee (37 CFR 3.41) ..... \$40.00

☐ Enclosed☒ Authorized to be charged to deposit account8. Deposit account number: 23-2415  
(Attorney Docket No.: 227.201)

## DO NOT USE THIS SPACE

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

U.P. Peter Eng, Reg. No. 39,665

Name of Person Signing

Signature

9/11/2003

Date

Total number of pages including cover sheet, attachments, and document: [7]

CH \$40.00 232415 09933731

## PATENT ASSIGNMENT

This Patent Assignment ("Assignment") is made as of July 31, 2003 by Alcatel, a French Company organized and existing under the laws of France, having its registered office 54 rue La Boétie, 75008 Paris, France ("Assignor"), to **Avanex Corporation**, a Delaware corporation having a place of business at 40919 Encyclopedia Circle, Fremont, California 94538, United States of America ("Assignee").

### RECITALS

A. Assignor, Assignee and Corning Incorporated have entered into a Share Acquisition and Asset Purchase Agreement dated as of May 12, 2003 (the "Purchase Agreement").

B. Assignor owns the patent(s) issued by the United States Patent and Trademark Office and certain foreign patent and trademark offices, as well as patent applications filed with the United States Patent and Trademark Office and certain foreign patent and trademark offices, as set forth on Schedule A hereto (the "Patents").

C. Pursuant to the Purchase Agreement, Assignor desires to assign to Assignee all of Assignor's right, title and interest in and to the Patents.

### AGREEMENT

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants and agreements contained in the Purchase Agreement and the covenants and agreements in this Assignment and to induce Assignee to consummate the transactions contemplated by the Purchase Agreement, Assignor agrees as follows:

1. Assignor does hereby irrevocably sell, transfer, convey, assign and deliver to Assignee all of Assignor's right, title and interest in and to the Patents (and regarding Patents that are patent applications, any patents that may issue therefrom), including any foreign counterparts, patents or patent applications to which the Patents claim priority, divisionals, continuations in whole or in part, reexaminations, reissues or extensions thereof, and the right to claim priority to any of the preceding, the same to be held by Assignee for Assignee's own use and enjoyment, and for the use and enjoyment of Assignee's successors, assigns and other legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignor if this Assignment and sale had not been made; together with all claims for damages by reason of past infringements of the Patents and the right to sue for and collect such damages, as permitted under the applicable laws for any jurisdiction or country in which such claims may be asserted (provided, however, that the foregoing does not require Assignor to pay to Assignee any revenues or damages previously recovered or to be recovered pursuant to contracts previously concluded by Assignor, nor does it amend any other written agreements between Assignor and Assignee with respect thereto), for the use and benefit of Assignee and its successors, assigns and other legal representatives.

2. Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any officer of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of intellectual property protection or applications as aforesaid, to issue the same to Assignee and its successors, assigns and other legal representatives in accordance with the terms of this instrument.

IN WITNESS WHEREOF, Assignor has executed this Assignment.

ASSIGNOR

By:

  
Signature

Printed Name: Ulrich Knecht

Title: Director Intellectual Property

**Schedule A**

Certificate of Signature

The signature executed before me above by

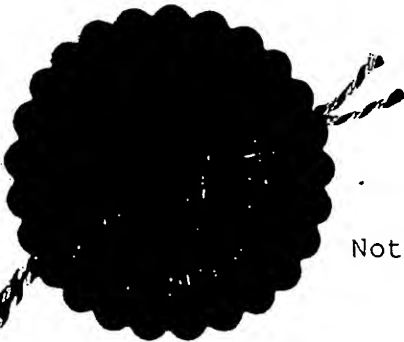
Mr. Ulrich K n e c h t ,  
born March 02<sup>th</sup>, 1957,  
Lorenzstr. 10, 70435 Stuttgart,

-identified by ID-Card of the Federal Republic  
of Germany-

is herewith duly certified.

Stuttgart, July 25<sup>th</sup>, 2003

UR-Nr. 406 / 2003



Hans Ulrich K u r z  
Notary Public at Stuttgart

## **Schedule A**

# REDACTED

ALCATEL patents to be assigned

docket	Patent card title	country	protection type	date of status	status	filing date	filing No.	publication date	publication No.	grant date	grant No.
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111862	Elimination of polarization dependence	DE	NP	3/21/02	PUBA	8/23/00	10041174.6	3/21/02	10041174		
		EP	EPA	2/27/02	PUBA	7/17/01	01440224.2	2/27/02	1182473		
		JP	NP	4/5/02	PUBA	8/17/01	2001-247688	4/5/02	2002-98850		
		US	NP	4/4/02	PUBA	8/22/01	09533731	4/4/02	002-0039474		

May 9th, 2003

49/62